

Notice of Allowability

Application No.

10/730,602

Examiner

Nitin Patel

Applicant(s)

FUJIOKA ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/25/2007.
2. ☒ The allowed claim(s) is/are 56-61, 65-70 and 74-79.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

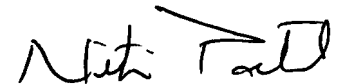
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


NITIN I. PATEL
PRIMARY EXAMINER

REASON FOR ALLOWANCE

1. Claims 56-61, 65-70, 74-79 are allowed. Claims 1-55, 62-64, 71-73, 80-82 has been cancelled.

2. The following is an examiner's statement of reason for allowance:

The prior art fails to teach or suggest a method of detecting coordinates based upon two groups of opposing pairs of light emitting elements and light detecting elements, the two groups being perpendicularly positioned along two directions and surrounding a two-dimensional coordinate input and detection area for accepting an input from a pointing means, a plurality of the light detecting elements being placed in a light emitting area of each of the light emitting elements to accept light emitted from each of the light emitting elements in an overlapping manner, comprising the steps of: sequentially and individually activating the light emitting elements within a predetermined time interval; determining whether or not the light is interrupted along directions between activated one of the light emitting elements and the light detecting elements in the corresponding light emitting area of the activated light emitting element; calculating two-dimensional coordinates for the input from the pointing means based upon the positions of the activated light emitting element and one or more of the light detecting elements that have detected the interruption of the light in the corresponding light emitting area, which define the interrupted light detecting elements as claimed in claim 56.

The prior art fails to teach or suggest a storage medium containing computer instructions for detecting coordinates based upon two groups of opposing pairs of light

emitting elements and light detecting elements, the two groups being perpendicularly positioned along two directions and surrounding a two-dimensional coordinate input and detection area for accepting an input from a pointing means, a plurality of the light detecting elements being placed in a light emitting area of each of the light emitting elements to accept light emitted from each of the light emitting elements in an overlapping manner, the computer instructions performing the tasks of: sequentially and individually activating the light emitting elements within a predetermined time interval ; determining whether or not the light is interrupted along directions between activated one of the light emitting elements and the light detecting elements in the corresponding light emitting area of the activated light emitting element; calculating two-dimensional coordinates for the input from the pointing means based upon the positions of the activated light emitting element and one or more of the light detecting elements that have detected the interruption of the light in the corresponding light emitting area, which define the interrupted light detecting elements as claimed in claim 65.

The prior art fails to teach or suggest a system for detecting coordinates based upon two groups of opposing pairs of light emitting elements and light detecting elements, the two groups being perpendicularly positioned along two directions and surrounding a two-dimensional coordinate input and detection area for accepting an input from a pointing means, a plurality of the light detecting elements being placed in a light emitting area of each of the light emitting elements to accept light emitted from each of the light emitting elements in an overlapping manner, comprising: a light emitting control for sequentially and individually activating the light emitting elements

within a predetermined time interval an interruption determination unit connected to said light emitting control for determining whether or not the light is interrupted along directions between activated one of the light emitting elements and the light detecting elements in the corresponding light emitting area of the activated light emitting element; a coordinate calculation unit connected to said determination unit for calculating two-dimensional coordinates for the input from the pointing means based upon the positions of the activated light emitting element and one or more of the light detecting elements that have detected the interruption of the light in the corresponding light emitting area, which define the interrupted light detecting elements as claimed in claim 74.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

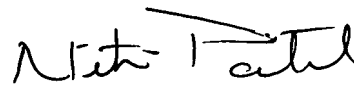
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nitin Patel
Primary Examiner
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A handwritten signature in black ink, appearing to read "Nitin Patel", with a stylized flourish at the end.

NITIN I. PATEL
PRIMARY EXAMINER